AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1 -33 (Canceled)

34. (New) A method of coupling a spliceable optical fiber for transmission of light in its longitudinal direction to an optical component, the method comprising:

(A) providing the spliceable optical fiber, said spliceable optical fiber comprising:

(a) a core region; and

(b) a microstructured cladding region, said cladding region surrounding said core region and comprising:

(b1) an inner cladding region with inner cladding features arranged in an inner cladding background material with a refractive index n1, said inner cladding features comprising thermally collapsible holes or voids, and

(b2) an outer cladding region with an outer cladding background material with a refractive index n2;

said spliceable optical fiber having at least one end;

(B) collapsing said thermally collapsible holes or voids by heating said least one end of said spliceable optical fiber; and

(C) coupling said collapsed spliceable optical fibre end to the optical component.

35. (New) The method according to claim 34, wherein said collapsing of said thermally collapsible holes or voids being gradual and/or abrupt.

36. (New) A method according to claim 34, wherein said thermally collapsible holes or voids are wholly or partially collapsed.

37. (New) A method according to claim 34, wherein said heating is being adapted so that a guided mode at said at least one end of the spliceable optical fiber is confined by an index profile determined by background materials of the core and the inner cladding.

38. (New) A method according to claim 34, wherein said heating is provided by a fusion splicer.

39. (New) A method according to claim 34, wherein said coupling comprises fusing of said at least one collapsed spliceable optical fiber end and said optical component.

40. (New) A method according to claim 34, wherein said optical component is an optical fiber, an optical connector, or a combination thereof.

41. (New) The method according to claim 40, wherein said optical fiber is a photonic crystal fiber, or a non-microstructured optical fiber.

42. (New) The method according to claim 34, wherein said collapsing of said thermally collapsible holes or voids is controlled by applying less-than-atmospheric pressure to the holes or voids of the optical fiber to facilitate their collapse.

43. (New) A spliceable optical fiber for transmission of light in its longitudinal direction, the optical fiber having a cross section perpendicular to the longitudinal direction, said optical fibre comprising

(a) a core region; and

(b) a microstructured cladding region, said cladding region surrounding said core region and comprising:

(b1) an inner cladding region with inner cladding features arranged in an inner cladding background material with a refractive index n_1, said inner cladding features comprising thermally collapsible holes or voids, and

(b2) an outer cladding region with an outer cladding background material with a refractive index n_2;
wherein said n_1 being larger than n_2.

44. (New) The optical fiber according to claim 43, comprising a collapsed section or an end wherein said inner thermally collapsible holes or voids are collapsed.

45. (New) A optical fiber according to claim 43, wherein said inner cladding features have a size of d_1 and said outer cladding region comprises outer cladding features of size d_2.

46. (New) An optical fiber according to claim 45, wherein d_2 is larger than d_1.

47. (New) An optical fiber according to claim 43, wherein n_1 and n_2 are different by less than 2%, such as less than 1%, such as less than 0.5%.

48. (New) An optical fiber according to claim 43, wherein the optical fiber comprises silica-based materials.

49. (New) An optical fiber according to claim 43, wherein said core region comprises a material with a refractive index n_{core}, and n_{core} is equal to n_1.

50. (New) An optical fiber according to claim 43, wherein said core region comprises a material with a refractive index n_{core}, and n_{core} is larger than n_1.

51. (New) An optical fiber according to claim 43, wherein said core region comprises material with a refractive index n_{core}, and n_{core} is smaller than n_1.

52. (New) An optical fiber according to claim 43, wherein said core region comprises a material with a refractive index n_{core}, and n_{core} is smaller, equal to, or larger than n_2.

53. (New) An optical fiber according to claim 43, wherein said core region has a diameter smaller than or equal to 3.0 μm.

54. (New) An optical fiber according to claim 43, wherein said optical fiber has at least one position, position 1, along its length where a guided mode at a given wavelength, λ, is confined to the core region by the presence of inner cladding features, and λ is in the range from 0.4 μm to 2.0 μm.

55. (New) An optical fiber according to claim 43, wherein the core region has a largest dimension, r_{PCF}, being in the range of 0.8 μm to 3.0 μm.

56. (New) An optical fiber according to claim 43, wherein the inner cladding region has a largest dimension, r_{solid}, being in the range of 3.0 μm to 15.0 μm.

57. (New) A preform for producing a spliceable optical fiber as defined in claim 43, the preform comprising longitudinal preform elements comprising:
(a) at least one core element (120) comprising a material with refractive index n_{core};

(b) inner cladding elements (121) comprising a tubular element of a material with refractive index n_1, said tubular element being adapted to form a collapsible hole or void in the spliceable optical fiber; and

(c) outer cladding elements (122) comprising a material with refractive index n_2, and wherein n_1 is larger than n_2.

58. (New) The preform according to claim 57, wherein said tubular element of the inner cladding has an inner dimension $d_{1,preform}$ and said outer cladding elements comprising a tubular element with an inner dimension $d_{2, perform}$, and $d_{2, perform}$, is larger than $d1_{,perform}$.

59. (New) A method of producing a spliceable optical fiber as defined in claim 43, the method comprising drawing an optical fiber from a preform for producing a spliceable optical fiber as defined in claim 43, the preform comprising longitudinal preform elements comprising:

(a) at least one core element (120) comprising a material with refractive index n_{core};

(b) inner cladding elements (121) comprising a tubular element of a material with refractive index n_1, said tubular element being adapted to form a collapsible hole or void in the spliceable optical fiber; and

(c) outer cladding elements (122) comprising a material with refractive index n_2, and wherein n_1 is larger than n_2.

60. (New) A spliceable optical fiber as defined in claim 59 obtainable by the method defined in claim 59.

61. (New) A heat-treated spliceable optical fiber comprising a spliceable optical fibre as defined in claim 59, or a spliceable optical fiber obtainable by the method defined in claim 59, prepared by a heat-treatment of at least one end or a section of the spliceable optical fiber.

62. (New) An article comprising a spliceable optical fiber for transmission of light in its longitudinal direction, the optical fiber having a cross section perpendicular to the longitudinal direction, said optical fibre comprising:

(a) a core region; and

(b) a microstructured cladding region, said cladding region surrounding said core region and comprising:

(b1) an inner cladding region with inner cladding features arranged in an inner cladding background material with a refractive index n_1, said inner cladding features comprising thermally collapsible holes or voids, and

(b2) an outer cladding region with an outer cladding background material with a refractive index n_2;
wherein said n_1 being larger than n_2, wherein said article is a non-linear fiber component, or a dispersion compensating fiber component.